

Date: Thu, 26 May 94 09:09:33 PDT  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V94 #578  
To: Info-Hams

Info-Hams Digest                      Thu, 26 May 94                      Volume 94 : Issue    578

Today's Topics:

6146A vs 6146 (2 msgs)  
Bizarre QST Statement (6 msgs)  
Converting an old HT-220 to 2M  
DX, dx and calculus  
Field Day!  
Help: FT-5200 LED Replacement  
Looking for questions of FCC exam  
PRB-1: How Strong?  
RFI Tracked Down!!  
Site to look up frequencies  
SSB Filters  
TenTec Omni VI anyone?

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

-----  
Date: 26 May 1994 13:00:16 GMT  
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!news.umbc.edu!  
haven.umd.edu!cville-srv.wam.umd.edu!ham@network.ucsd.edu  
Subject: 6146A vs 6146  
To: info-hams@ucsd.edu

In article <2s130r\$vb@vixen.cso.uiuc.edu>,  
william r finch <wrfin@prairienet.org> wrote:

>

>

>Hi, Dave, I looked this up in the handbook, the 6146A is shown with plate

>voltage of 750V, power out of 70W. The 6146 is shown as 500V, power out  
>of 48W. The 6146B is shown as plate 750V, power out of 85W. This is due  
>to the higher plate current, 160mA instead of 120-135 for the other two.  
>I have an "old" HW101, with 6146's in it, and was thinking of putting  
>A's in it, and playing with the plate voltage, but, who's got time!  
>Anyway, I think that's the significant differences, if there are any 6146  
>experts out there, we will be sure to hear from them!.

>

For all interested, there's also something called the 6146W, which I was  
led to believe was a ruggedized, mil-spec version of the 6146B. VERY  
expensive if you can find them.

And I have also heard some stuff about HOW to buy tubes. Apparently  
6146's are still being made by Penta, a Chinese brand that I've been  
warned to stay away from. So I have my spare pair of RCA's, still new in  
the boxes, manufactured in September, 1960, and hoping they're still good  
for whenever I may need them...

--

73,

----- The  
      \ / Long Original  
Scott Rosenfeld Amateur Radio NF3I Burtonsville, MD | Live \$5.00  
WAC-CW/SSB WAS DXCC - 125 QSLed on dipoles -----| Dipoles! Antenna!

-----

Date: 26 May 1994 08:53:05 -0500

From: ihnp4.ucsd.edu!swrinde!cs.utexas.edu!not-for-mail@network.ucsd.edu

Subject: 6146A vs 6146

To: info-hams@ucsd.edu

Hi,

If I may add my two cents worth, I have seen a copy of the internal tech notes  
for the HW-101. It stated that in the 1978 - 1979 time period, some  
tubes (6146A) were not manufactured to Heath's quality specifications.  
Therefore the sticker was added to the radio kits to warn the users.

A couple of years later the sticker was removed after quality picked up.  
I am sorry I don't remember the manufacturer's name of the 6146A.  
At that time quality assurance determined that the 6146A could be used  
and removed the sticker from the bill of materials for the HW-101.

BTW, I have also heard about the 6146W tubes. My understanding is that  
you can get approx. 140 watts out of them, while the 6146, 6146A is  
about 100 watts. All this paragraph is hearsay though.

And oh, to paraphrase one fellow on a local repeater, 'Here's my good advice, and it didn't cost anything, so it must be good for nothing.'.

Jeff Johnson, KF8UW

-----  
Date: 26 May 94 12:02:23 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Bizarre QST Statement  
To: info-hams@ucsd.edu

WRT my earlier post, my rig is an FT-101ZD with two 6146's though I forget if they're A's B's etc. I beleive there's an FT-102 and FT-901 that have 6146 finals, though I was surprised to learn the 101E and other earlier ones didn't.

My first rig was a homebrew one tube "full gallon" 75 watt novice cw rig built from a schematic in the handbook in 1960, the final was, you guessed it, a 6146.  
--

Stephen P. Baker	phone: (508) 856-2625
Lecturer in Biostatistics	(508) 856-3131 fax
Department of Academic Computing	(413) 253-3923 home
University of Massachusetts Medical School	e-mail: sbaker@umassmed.ummed.edu
55 Lake Avenue North	-. -.. .---- .--. ...
Worcester, MA 01655	

-----  
Date: 26 May 94 11:39:39 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Bizarre QST Statement  
To: info-hams@ucsd.edu

Greg said:  
edu  
: Subject: Bizarre QST statement  
: To: info-hams@ucsd.edu  
:  
: In June QST, there is an article on buying your first HF rig.  
:  
: Hooray!  
:  
: However, the author makes a really bizarre statement:  
:  
: In talking about hybrid rigs, he instructs the neophyte to stay

: away from those which have sweep tubes in the final, and go only  
: for those with 'real' transmitting tubes (6146, presumably).  
:  
: Pretty much narrows it down to 'Kenwood.'  
:  
: It lets out Drake 4-line, which he mentioned as an example, FT-101s,  
: etc.

??????????

MY ft-101 has 6146's. Doesn't yours?

--

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55 Lake Avenue North	-. -.. .---- .--. ...-
Worcester, MA 01655	

-----  
Date: Thu, 26 May 1994 13:13:46 GMT  
From: ihnp4.ucsd.edu!library.ucla.edu!csulb.edu!csus.edu!netcom.com!  
greg@network.ucsd.edu  
Subject: Bizarre QST statement  
To: info-hams@ucsd.edu

In article <2s0pqo\$dc2\$1@rosebud.ncd.com> steview@sheridan.ncd.com (Steve Wilson)  
writes:

>

>Just for the record, I'm pretty sure that the FT101 uses 6146s.

Just for the record, there are as many 6146s in FT101s as there are in  
RCA televisions.

Greg

-----

Date: Thu, 26 May 1994 12:48:17  
From: ihnp4.ucsd.edu!swrinde!gatech!howland.reston.ans.net!EU.net!sunic!  
ugle.unit.no!pcg21.kjemi.unit.no!espen@network.ucsd.edu  
Subject: Bizarre QST Statement  
To: info-hams@ucsd.edu

In article <9405261139.AA19763@umassmed.UMMED.EDU> sbaker@umassmed.UMMED.EDU  
(Stephen Baker) writes:

[snip,snip... 6146 is the only real X-mit tubes not used in Drake, FT-101...

>???????????

>MY ft-101 has 6146's. Doesn't yours?

Nope! \*My\* FT101E has two 6JS6C's.....(expensive).  
I like that old rig! Not too sensitive (read: deaf) on 10m, but otherwise OK.  
Could have used a notch filter and WARC-bands though.  
The reciever is really sensitive with a nice, narrow preselect filter.

Espen

LA6MGA/LA1K, DoD# 7962  
Disclaimer???? What disclaimer?

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Date: Thu, 26 May 1994 11:54:32 GMT  
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!darwin.sura.net!  
gatekeeper.es.dupont.com!esds01.es.dupont.com!  
GRIB%esvx17.es.dupont.com@network.ucsd.edu  
Subject: Bizarre QST statement  
To: info-hams@ucsd.edu

In article <gregCqDF5I.J7y@netcom.com>, greg@netcom.com (Greg Bullough) writes:  
>In June QST, there is an article on buying your first HF rig.

>

>Hooray!

>

>However, the author makes a really bizarre statement:

>

>In talking about hybrid rigs, he instructs the neophyte to stay  
>away from those which have sweep tubes in the final, and go only  
>for those with 'real' transmitting tubes (6146, presumably).

>

>Pretty much narrows it down to 'Kenwood.'

>

etc.

>Greg

Greg,

I think the reasoning behind steering a "novice away from sweep tubes" isn't due to their availability, but the "forgiveness" of the 6146. I agree that a lot of good gear is available with sweep tubes (I'm still using my TR-4C and C-line), and they work well. I think though, that for the beginner especially who may be tuning the rig up for the first few times by him/her self, the 6146 is a bit more forgiving of errors and a "too long key down time". You have to really try and kill a '6146' whereas some sweep tubes especially when they're older and weaker, don't take much to push them over the edge. I also feel that this type of advice is due to the rising price of ham gear (both new and used), since beginners won't be looking towards new gear as much as older, more affordable gear (like the TS-520S, FT-101E, and TR-4C class of rigs), very usable even today, but still either hybrid or all tube designs.

73,

Joe KI3B

-----  
Date: Thu, 26 May 1994 14:52:33 GMT  
From: ihnp4.ucsd.edu!scubed!nuntius@network.ucsd.edu  
Subject: Bizarre QST statement  
To: info-hams@ucsd.edu

Subject: Bizarre QST statement  
From: Greg Bullough, greg@netcom.com  
In article <gregCqDF5I.J7y@netcom.com> Greg Bullough, greg@netcom.com writes:  
>In June QST, there is an article on buying your first HF rig.  
>  
>Hooray!  
>  
>However, the author makes a really bizarre statement:  
>  
>In talking about hybrid rigs, he instructs the neophyte to stay  
>away from those which have sweep tubes in the final, and go only  
>for those with 'real' transmitting tubes (6146, presumably).  
>  
>Pretty much narrows it down to 'Kenwood.'  
>  
>It lets out Drake 4-line, which he mentioned as an example, FT-101s,  
>etc.  
>  
>One wonders how such a bizarre and subjective criteria got by the  
>editorial staff. Would we really tell a Novice not to buy a good  
>used TR4C or FT-101!?!  
>

>  
>Yeah, I like 6146s better, but sweep tubes are both effective and  
>available.  
>  
>Greg

As the owner of an FT-101E I would recommend that novices get a Kenwood TS 520 or 820 or 830 instead.

The 6JS6c sweep tubes used for finals in the 101E are difficult to neutralize. The rig was designed for the NEC 6JS6c, which went out of production circa 1980. Other 6JS6Cs do not have as large a plate structure. This causes two problems, plate dissipation is less and the neutralization capacitor is too small. Nothing can be done about the first, other than replacing finals every year instead of every 3 to 4 years, but one can add a mica capacitor across the neutralization variable to fix the second. I found out this after I burned out a choke in the driver stage due to parasitic oscillations from my attempts to neutralize the last set of tubes I installed. This prompted my purchase of a new rig! (long overdue) There appears to be no "standard" for the 6JS6C as the ones I have purchased over the years have quite different internal construction. (yes I saved the old tubes-a fact I can't explain to my wife or to myself. The newer ones I have purchased have plates about half the size of the NECs that came with the rig. I have two GE tubes (purchased at different times) that have very different sized plates! I believe that the 6146 does not have this variation from tube to tube. I think that the TR-4 and TR-3 use different sweep tubes than the 6JS6C, so I don't know if they have this quality control problem.

As an unrelated issue, the receiver in the FT 101E is more prone to intermod than the Kenwoods as well, and in my opinion the receiver is the most important part of a rig, and should receive more consideration than the types of tubes in the finals. This alone should drive one to the Drake or Kenwood.

James R. Duffey  
S-Cubed Division of Maxwell Laboratories  
2501 Yale Street SE Suite 300  
Albuquerque, NM 87106

KK6MC/5

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Date: 26 May 1994 13:21:04 GMT  
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!spool.mu.edu!bloom-beacon.mit.edu!  
senator-bedfellow.mit.edu!space.mit.edu!crispy@network.ucsd.edu  
Subject: Converting an old HT-220 to 2M  
To: info-hams@ucsd.edu

By the way, I have 5 Motorola HT-220 for sale. I would like \$35/ea or 150/all.

For more info, e-mail to [crispy@space.mit.edu](mailto:crispy@space.mit.edu).

thanks,

-----  
Christopher S. Pak  
Massachusetts Institute of Technology  
Center for Space Research  
37-487  
77 Massachusetts Ave.  
Cambridge, MA 02139  
Phone: (617)253-9342  
Fax: (617) 253-0861  
E-mail: [crispy@space.mit.edu](mailto:crispy@space.mit.edu)  
-----

Date: 26 May 94 14:43:38 GMT  
From: [news-mail-gateway@ucsd.edu](mailto:news-mail-gateway@ucsd.edu)  
Subject: DX, dx and calculus  
To: [info-hams@ucsd.edu](mailto:info-hams@ucsd.edu)

> "a quantum leap in technology", which to me means the smallest  
> possible change, but which has somehow come to mean "an enormous  
> change" to some people.  
>Derek Wills (AA5BT, G3NMX)

however, a quantum leap is where a particle changes energy states without any  
interveneing states..an electron at E0 goes to E1 w/o gradually going throught  
E0.1, E0.2 etc.

Usually used in advertising to suggest that the new thing isn't an incremental  
improvement over the old thing but a Brand New Device (but made with 100%  
recycled atomic subparticles..)

And there's that TV show of the same name where a quantum leap had something  
to do with time travel or getting drunk in a bar near a coal mine - i don't  
know which.

bill wb9ivr  
rockwell avionics/collins  
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Date: Thu, 26 May 1994 08:02:21 -0400  
From: [ihnp4.ucsd.edu](mailto:ihnp4.ucsd.edu)![usc@howland.reston.ans.net](mailto:usc@howland.reston.ans.net)![newsserver.jvnc.net](mailto:newsserver.jvnc.net)![rohvm1](mailto:rohvm1)!



rohvm1.mah48d@network.ucsd.edu  
Subject: Field Day!  
To: info-hams@ucsd.edu

In article <1994May24.142838.28167@cobra.uni.edu>,  
parickj4560@cobra.uni.edu wrote:

> I have a Yaesu FT301AD and I was thinking about running my own FD site.

> I have thought of running my rig with the car batteries, just plop the  
> radio in the right seat. (But remaining in the same spot at all times).

>

> Would the car approach work or would the 15 amp radio suck my battery  
> dry in no time?

Even if you only run a 5-watt rig from your car battery, make sure you've  
got somebody around with another car and a set of jumpers if you plan to  
work all 24 hours of field day! Cheaper than a generator, and lots safer  
than using the car battery is to get a marine deep-discharge battery just  
for portable operation. You can figure, based on the current drain of your  
rig on transmit and receive, how much power you'll need for the contest--I  
use a 25% key-down time estimate for the calculation: (time \* receive  
current \* 0.75) + (time \* transmit current \* 0.25).

--

John Taylor (W3ZID) | "The opinions expressed are those of the  
rohvm1.mah48d@rohmmaas.com | writer and not of Rohm and Haas Company."

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Date: Thu, 26 May 94 09:09:19 CDT  
From: ihnp4.ucsd.edu!swrinde!cs.utexas.edu!howland.reston.ans.net!  
vixen.cso.uiuc.edu!newsrelay.iastate.edu!news.iastate.edu!usenet@network.ucsd.edu  
Subject: Help: FT-5200 LED Replacement  
To: info-hams@ucsd.edu

Hi,

I have a YAESU FT-5200 that has one of the LED's used for back-  
lighting burned out. I don't want to send it in to have a simple  
LED replaced, has anyone opened up the face plate of a FT-5200?  
Any suggestions or comments?

Thanks

--

-----  
Glenn Pearston

(515) 294-0032 v



published (I believe) within the past 18 months.

Any knowledgeable lawyers out there (or concerned hams, or both?) care to comment?

My city of Glendale, CA has extremely restrictive antenna regulations: no antenna can be visible, can't be over 25 feet tall, etc. I have always assumed that if they wanted to get it on in the courts that I could defend my right to have my R-5 vertical chimney mounted. (After all, the r-5 is almost 20 feet tall itself; how am I going to keep it from being higher than 25 feet? :-)

Reading the CQ article would cause most readers, I think, to conclude that one's liklihood of prevailing in court is poor.

--

rogjd@netcom.com  
Glendale, CA  
AB6WR

-----  
Date: 26 May 1994 11:05:21 GMT  
From: news2.sprintlink.net!news.sprintlink.net!news.clark.net!andy@uunet.uu.net  
Subject: RFI Tracked Down!!  
To: info-hams@ucsd.edu

I am passing this info along just in case you may be suffering from a similar problem...

Yesterday I uncovered a major source of RFI in my house. This RFI affected reception of both the 2-meter and 220 MHz bands. It drove my scanner crazy. It created minor diagonal lines on channels 4 and 5 of our television sets, both through the cable system and through rabbit-ear antennas. And, I believe it affected the operation of my Boca high speed modem which is especially susceptible to RF, and located one story directly above the source. I suspect it also affected my Mr. Coffee machine, but I can't prove it. ;-)

Last evening I got pretty much fed up with the RFI and made a concerted effort to track it down. The source turned out to be a most unlikely device...our electric hot water heater. Not actually the heater itself, but an energy saving device installed by our local electric utility company (RF, Incorporated) about a year ago. It's a lunchbox-size grey box in series with the ac wire going to the heater. It has several colorful LEDs on the front panel, happily blinking to the tune of "HA-HA-I'M-REALLY-SCREWING-UP-THIS-GUY'S-HAM-RADIO-HOBBY."

The device apparently is \*supposed to\* emit RF, as it communicates via the electrical wires to the utility's local office, giving the utility company the ability to remotely regulate the AC power going into the hot water heater. With it, our bill is reduced by approximately \$100 a year.

While the utility company acknowledged the energy-saver emits RF, they did not know on what frequency. I told them it radiates on just about all the frequencies in the spectrum, and that they should stop by today and get the \*&^\$!%# thing out of the house! It's worth giving up a \$100/year electric bill reduction to not be bombarded by so much RF.

73... andy\_k4adl@rf.free.by.the.time.i.get.home.from.work.tonight

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Date: Thu, 26 May 1994 15:03:14 GMT  
From: wang!dbushong@uunet.uu.net  
Subject: Site to look up frequencies  
To: info-hams@ucsd.edu

bruceg7809@aol.com (BruceG7809) writes:

>In article <1994May20.053507.12168@ccc.amdahl.com>,  
>dws30@p1dbg02.amdahl.com (David Sharpe) writes:

>I am also interested in the ftp or site to look up frequencies for  
>scanners  
>Please inform me of newgroup or ftp...  
>Thanks

Try  
    rec.radio.scanner

which is quite active. Also, I'll send you a pretty good list via email.

Dave, KZ10

--  
Dave Bushong, Wang Laboratories, Inc.

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Date: Thu, 26 May 1994 12:06:13 GMT  
From: ihnp4.ucsd.edu!usc!elroy.jpl.nasa.gov!ncar!csn!col.hp.com!news.dtc.hp.com!  
hplextra!hplb!hpwin055.uksr!hpqmoa!dstock@network.ucsd.edu  
Subject: SSB Filters  
To: info-hams@ucsd.edu

I know of one world-class crystal filter manufacturer based in France, C.E.P.E. part of Thomson-CSF. I've got one in front of me now, but no address.

The highest reputation filters in amateur circles are German  
KVG Kristall Verarbeitung Neckarbischofsheim GMBH  
Postfach 61 D-6924 Neckarbischofsheim  
Telefon 07263/648-0

John Birkett  
25 The Strait  
Lincoln  
LN2 1 JF  
England

Tel +44 522 520767

Often has surplus crystal filters in stock. I've bought a number of marine quality 1.4 MHz IF usb, lsb, cw filters from him

The best advice is to first find your filters, then use IF to suit.

Recently a lot of 1.4 MHz IF filters of superb performance have flooded onto the British market at very low surplus prices (I paid the equivalent of 40 francs each, although the prices fluctuate) Filters for AM RTTY and various CW bandwidths are also to be found as well as proper separate USB and LSB ones. I think of good government surplus components as a sort of tax refund!

Bon Chance!

David

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Date: Thu, 26 May 1994 12:54:59  
From: ihnp4.ucsd.edu!swrinde!pipex!uknet!EU.net!sunic!ugle.unit.no!  
pcg21.kjemi.unit.no!espen@network.ucsd.edu  
Subject: TenTec Omni VI anyone?  
To: info-hams@ucsd.edu

How is the Omni VI really? In some time we'll have to buy a new rig at LA1K to replace the old IC751A. The Omni VI looks like a good rig out from the ads/specs/etc..

Does anybody here actually operate one of these? How is it like?

Espen

LA6MGA/LA1K, DoD# 7962

Disclaimer???? What disclaimer?

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End of Info-Hams Digest V94 #578

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